



James Cook University PhD student Bettina Glasl with Science Minister Leanne Enoch discuss the Sea Sim at AIMS

News

Reef health study

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BREAKTHROUGH research being done by a James Cook University PhD student could change the face of Great Barrier Reef monitoring.

Bettina Glasl has received \$45,000 in State Government funding to help drive her research, which involves analysing microbes to try to spot early warning signs for reef health.

“If you study the microbes and the microbes give us an earlier indication then we can really act on time,” she said.

“The earlier you notice that you’re sick, the more likely there is a good outcome for you and the same counts for the reef.”

Ms Glasl said working with microbes was expensive because of the special techniques required to carry out the research.

“This funding allows me to push my research even further and to ask more questions,” she said.

“The idea of my research is to use microbes as an indicator for reef health because microbes respond way faster to changes in the environment ... we can then study the microbes and see how the reef is changing and that will help us to go in the right direction and to change policies eventually.”

Ms Glasl is working towards her PhD in partnership with scientists from James Cook University, the Australian Institute of Marine Science, University of Queensland, Bioplatforms Australia and the Great Barrier Reef Marine Park Authority. Minister for Innovation, Science and the Digital Economy Leeanne Enoch said Ms Glasl received her PhD scholarship last year under the Government’s Advance Queensland initiative.

“For us we see this as an opportunity to invest not just in great science in Queensland but to invest in a way that’s actually going to make a difference in the real world,” she said.

“This scholarship is just one of over 100 that we’ve seen in our research fellowships and scholarships where we’re supporting researchers right across a whole broad area in terms of industry.”

Principal research scientist and PhD supervisor Nicole Webster said Ms Glasl had so far met all her scientific milestones.

“The first 12 months of Bettina’s project have included monthly collection of reef communities: corals, sponges, macroalgae, sediment and seawater at targeted sampling sites,” Dr Webster said.

“Once the microbial DNA from these samples has been sequenced, Bettina will be in a position to establish a microbial baseline for the Great Barrier Reef.

“This baseline is particularly important as we still know so little about how these microbial communities vary with environmental conditions.”